

Response to Office Action
SN 10/008393
Customer No. 33354

REMARKS

A. Status of Claims

Claims 1-19 and 35-64 are pending. Claims 1-19 have been allowed. Claims 20-34 were previously cancelled.

B. Interpretation of "optical arrangement"

Applicant thanks the Examiner for his consideration and explanation of the scope of term "optical arrangement."

C. Claim Objections

Applicant thanks the Examiner for pointing out that claims 62-64 were not underlined as required for claims introduced into a reissue application. Applicant has included a new list of the claims herein.

D. §102 Rejections Relating to Ohshiro

The Examiner has rejected claims 35, 36, 38, 39, 41, 43, 44, 46, 47, 50, 57 and 58 as being anticipated by U.S. Patent No. 4,905,690 belonging to Ohshiro et al. ("Ohshiro"). Applicant respectfully disagrees.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros., Inc. v. Union Oil Co. of California*, 814 F.2d, 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), *cert. denied*, 484 U.S. 827 (1987). Independent claims 35, 41, 46, and 50 each require an optical arrangement that transforms the generated beam of laser light into a line of laser light. Dependent claims 36, 38, 39, 43, 44, 47, 57 and 58 depend from one of these four independent claims and therefore also require an optical arrangement for generating a line of laser light.

Ohshiro fails to disclose an optical arrangement that generates a line of laser light. Ohshiro discloses only a series of collimating lenses and a focusing lens. In particular, the lenses in Ohshiro work together to create three parallel beams and focus them on a single point:

"The first invention is characterized by having a series of first lenses, each corresponding to a semiconductor laser, designed for making the laser beams emitted from each of these semiconductor lasers parallel, and a second lens

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which collects these multiple parallel beams and focuses them to a single point to obtain a treatment laser beam.”

Ohshiro, col. 2, lines 63-69 and col. 3, line 1; *see also* Ohshiro, col. 3, lines 46-52 (similarly describing a second embodiment). As further explained by Ohshiro:

“In relation to the emission and focusing of the laser beams 8 by the semiconductor laser treatment unit; the laser beams 8 emitted from the semiconductor lasers 10 are first made parallel by the cylindrical lens 19, and then are refracted and focused by flat convex lens 7 so that they converge at a point a little past the tip 25 of the cap 3, thus forming a laser beam used in medical treatment.”

Ohshiro, col. 7, lines 9-16. Generation of a line of laser light is neither contemplated in Ohshiro's disclosure nor feasible according to the optical arrangement disclosed by Ohshiro. Ohshiro's lens 19 is any lens that acts as a collimator, and lens 7 simply refracts the multiple collimated beams into a single beam. *See, e.g.,* Ohshiro, Figure 5(a). Collimation and refraction are not the same thing as shaping. Collimation refers to making the light waves of the laser parallel to each other, whereas refraction refers to bending the light to change its direction. RANDOM HOUSE WEBSTER'S UNABRIDGED DICTIONARY pp. 404 and 1621 (2nd ed. 2001). A device can emit a laser beam that is collimated or refracted or both, but these actions will not shape laser light into a line. Accordingly, Ohshiro fails to disclose an optical arrangement for generating a line of laser light.

Because Ohshiro fails to disclose each and every element as set forth in Applicant's claims, Smith does not anticipate Applicant's claimed invention. Applicant respectfully requests that this rejection be withdrawn.

E. §§ 102 and 103 Rejections Relating to Smith

The Examiner has rejected claims 50-56 and 59-61 as being anticipated by, or in the alternative, obvious over U.S. Patent No. 5,464,436 belonging to Smith (“Smith”). Applicant respectfully disagrees.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros., Inc. v. Union Oil Co. of California*, 814 F.2d, 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), *cert. denied*, 484 U.S. 827 (1987). A claim is *prima facie* obvious only if an analogous prior art

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reference (or references when combined) teaches or suggests all the claim limitations. MPEP §2142. Independent claim 50 requires an optical arrangement that transforms the generated beam of laser light into a line of laser light. Dependent claims 51-56 and 59-61 depend from claim 50 and therefore also require an optical arrangement for generating a line of laser light.

Smith fails to disclose an optical arrangement that generates a line of laser light. Smith also fails to teach or suggest an optical arrangement that generates a line of laser light. The Examiner notes that Smith discloses an optical arrangement for receiving a light beam from a laser and for transforming/collimating the laser light beam into a line of laser light at a desired location on the patient's skin surface. Applicant respectfully disagrees. While Smith discloses an optical system, Smith only discloses one that forms a beam diameter to "approximately 3 mm² (e.g. a 1 mm x 3 mm rectangle)." Smith, col. 3, lines 20-22. Applicants respectfully assert that a rectangular beam shape is not interpreted as a line in the laser arts. A line's length is significantly greater than its width, whereas a rectangle's length is only a small multiple of its width. In fact, in the Federal District Court's order cited by the Examiner in his office action, the Court found that "'substantially linear' means 'a line having minimal width.'" ¹ In essence, a rectangle has length and width; a line has only length. It is more difficult to create a laser line emission than a comparatively wider rectangle. Therefore by disclosing a rectangular beam shape, Smith has not disclosed a line of laser light. Moreover, Smith also has not taught or suggested a line of laser light.

Because Smith fails to disclose each and every element as set forth in Applicant's claims, Smith does not anticipate Applicant's claimed invention. Additionally, because Smith fails to teach or suggest each and every element as set forth in Applicant's claim, Smith does not make Applicant's claimed invention obvious. Applicant respectfully requests that these rejections be withdrawn.

¹ Page 13 of Court Order Construing Patent Claim Terms, Erchonia Medical Inc. v. Smith, 06-08-2006, Case No. CIV 02-2036-PHX-MHM.

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F. §103 Rejections Relating to Ohshiro, Blum, and Meserol

The Examiner has rejected claims 37, 40, 42, 48, 49, and 62-64 as being obvious over Ohshiro or U.S. Patent No. 4,784,135 belonging to Blum et al. ("Blum") in view of U.S. Patent No. 5,474,528 belonging to Meserol ("Meserol").² Applicants respectfully disagree.

A claim is *prima facie* obvious only if an analogous prior art reference (or references when combined) teaches or suggests all the claim limitations. MPEP §2142. Additionally, there must be "a *reason* that would have promoted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. ___, 14, 127 S.Ct. 1727, 1741, 82 USPQ2d 1385 (2007) (emphasis added). Independent claims 35, 41, and 46 each include an optical arrangement that transforms the generated beam of laser light into a line of laser light. Dependent claims 37, 40, 42, 48, 49, and 62-64 depend from one of these four independent claims and therefore also require an optical arrangement for generating a line of laser light.

As explained above in Section D, Ohshiro fails to disclose an optical arrangement that generates a line of laser light. Blum and Meserol also fail to teach or suggest an optical arrangement for generating a line of laser light. Blum merely discloses an optional lens for focusing a radiation beam onto a selected spot. Blum, col. 4, lines 7-9. Focus is not the same thing as shape. Focus refers to how clear or fuzzy the image is, whereas shape refers to the perimeter geometry of the image as it impinges the patent's skin. Focus is defined in optics as "the clear and sharply defined condition of an image." RANDOM HOUSE WEBSTERS UNABRIDGED DICTIONARY 742 (2nd ed. 1987). A device can emit a laser beam that is in or out of focus, and focusing the beam will not change the resultant shape. That is, focusing optics are not inherent in beam shaping optical arrangements. For example, a linear beam has a linear shape, but may be in or out of focus:

² Applicant notes that the Examiner only states that "[c]laims 37, 40, 42, 48, 49, and 62-64 are rejected under 35 U.S.C. 103(a) as being unpatentable *over view* of Meserol" (emphasis added). However, in his comments on this rejection the Examiner explains how he believes Applicant's claims are obvious when combining Meserol with Blum or Ohshiro. The Examiner cites certain Blum and Ohshiro patents in form PTO-892 attached to the office action. Accordingly, Applicant believes that the Examiner intended to state that the 103(a) rejection was due to Meserol combined with Ohshiro and/or Blum cited in form PTO-892 and has responded accordingly.

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linear beam spot
in focus



linear beam spot
out of focus

Similarly a circular beam spot may be in or out of focus:

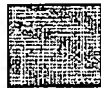


circular beam spot
in focus

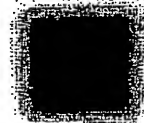


circular beam spot
out of focus

Similarly a square beam spot may be in or out of focus:



square beam spot
in focus



square beam spot
out of focus

Focusing optics do not necessarily provide an apparatus for obtaining a line of laser light.

Meserol merely discloses a lens for aligning and directing laser light into a connector and thereby into a bundle of optic fibers. Meserol, col. 9, lines 23-28. Aligning and directing laser light is not the same as shaping it, and the arguments of the preceding paragraphs are incorporated herein. Accordingly, whether alone or in combination, Meserol, Blum, and Ohshiro fail to teach or suggest an optical arrangement for generating a line of laser light.

Because Meserol, Blum, and Ohshiro fail to teach or suggest each and every element as set forth in Applicant's claim, Meserol, Blum, and Ohshiro, whether considered alone or in

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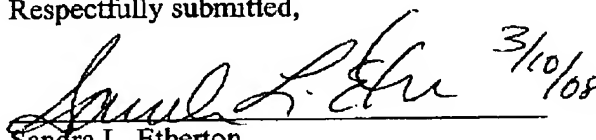
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combination, do not make Applicant's claimed invention obvious. Applicant respectfully requests that this rejection be withdrawn.

CONCLUSION

Applicant respectfully submits that all objections and rejections have been traversed, and that the application is in form for issuance. Applicant respectfully requests that the Examiner allow the application to proceed to issuance.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Sandra L. Etherton", with a date "3/10/08" written to the right of the signature.

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